ma noviſſimum, Dd ad Ff ut PE ad PS, & inde Ff æqualis $\frac{PS \times Dd}{PE}$; & $DEq. \times Ff$ æquale Dd in $\frac{DEq. \times PS}{PE}$, & propterea vis laminæ $EFfe$ eſt ut Dd in $\frac{DEq. \times PS}{PE}$ & vis particulæ ad diſtantiam PF exercita conjunctim, hoc eſt (ex Hypotheſi) ut $DN \times Dd$, ſeu area evaneſcens $DNnd$. Sunt igitur laminarum omnium vires in corpus P exercitæ, ut areæ omnes $DNnd$, hoc eſt Sphæræ vis tota ut area tota $ABNA$. Q. E. D.

Corol. 1. Hinc ſi vis centripeta ad particulas ſingulas tendens, eadem ſemper maneat in omnibus diſtantiis, & fiat DN ut $\frac{DEq. \times PS}{PE}$: erit vis tota qua corpuſculum a Sphæra attrahitur, ut area $ABNA$.

Corol. 2. Si particularum vis centripeta ſit reciproce ut diſtantia corpuſculi a ſe attracti, & fiat DN ut $\frac{DEq. \times PS}{PEq.}$: erit vis qua corpuſculum P a Sphæra tota attrahitur ut area $ABNA$.

Corol. 3. Si particularum vis centripeta ſit reciproce ut cubus diſtantiæ corpuſculi a ſe attracti, & fiat DN ut $\frac{DEq. \times PS}{PEqq.}$: erit vis qua corpuſculum a tota Sphæra attrahitur ut area $ABNA$.

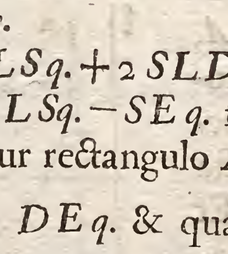
Corol. 4. Et univerſaliter ſi vis centripeta ad ſingulas Sphæræ particulas tendens ponatur eſſe reciproce ut quantitas V, fiat autem DN ut $\frac{DEq. \times PS}{PE \times V}$; erit vis qua corpuſculum a Sphæra tota attrahitur ut area $ABNA$.

Prop. LXXXI. Prob. XLI.

Stantibus jam poſitis, menſuranda eſt area $ABNA$.

A puncto P ducatur recta PH Sphæram tangens in H, & ad axem PAB demiſſa Normali HI, biſecetur PI in L; & erit (per

(per Prop. 12, Lib. 2. E
$2PSD$. Eſt autem SEq
lorum SPH, SHI) æquale
eſt contento
ſub PS &
$PS + SI +$
$2SD$, hoc
eſt, ſub PS
& $2LS +$
$2SD$, id eſt,
ſub PS &
$2LD$. Porro DE *quad*
æquale eſt
$SEq. - SDq.$



ſeu $SEq. - LSq. + 2SLD$
ALB. Nam $LSq. - SEq.$
Elem) æquatur rectangulo
$-ALB$ pro $DEq.$ & qua
Corollarium quartum Propo
ordinatim applicatæ DN, re
$-\frac{LDq. \times PS}{PE \times V} - \frac{ALB \times PS}{PE \times V}$
verſa vis centripetæ, & p
ter PS & $2LD$; tres illæ
linearum totidem curvarum,
innoteſcunt. Q. E. F.

Exempl. 1. Si vis centrip
tendens ſit reciproce ut diſt
dein $2PS \times LD$ pro $PEq.$

SIR ISAAC NEWTON *Philosophiae Naturalis Principia Mathematica* LONDON, 1687 TH